AMENDMENTS TO THE CLAIMS

1.   (Previously Presented) An apparatus comprising:

        a flow manager;

        a remote logical port (RLP) model to model a remote physical port (RPP); and

        a trunk scheduler to schedule transmission units direct to the remote physical port.

2.   (Amended) The apparatus of claim 1 wherein the flow manager comprises:

        a flow shaper; and

        a flow parameter database to hold parameters indicating characteristics of the flows. |

3.   (Amended) The apparatus of claim 1 wherein the flow manager comprises:

        a discard policy that is able to differentiate between the discard rates of at least two

flows; and

        a flow parameter database to hold parameters indicating characteristics of the flows. |

4.   (Amended) The apparatus of claim 1 wherein the flow manager comprises:

        an RLP scheduler; and

        a flow parameter database to hold parameters indicating characteristics of the flows. |

5.   (Original) The apparatus of claim 2 wherein the flow manager further comprises:

        an RLP scheduler.

6.   (Original) The apparatus of claim 1 wherein the RLP model comprises:

        an RLP data structure to hold data indicating characteristics of the RPP; and

        an RLP traffic shaper to make a transmission unit eligible consistent with the

characteristics of the RPP.

7.   (Original) The apparatus of claim 5 wherein the flow manager comprises a plurality of

queues, one queue for each flow directed toward the RPP.

8.   (Original) The apparatus of claim 7 wherein shaping and scheduling are performed by

manipulating pointers to the queues.

9.   (Original) The apparatus of claim 1 wherein the trunk scheduler statistically multiplexes an

aggregate of the flows directed to a plurality of RPPs.

10.   (Original) The apparatus of claim 1 wherein the trunk scheduler operates in a weighted round robin non-work conserving manner.

11.   (Original) The apparatus of claim 1 further comprising one of an OC-3 port and a DS-3 port.

12.   (Original) A system comprising:
       a broadband communication link;
       a demultiplexer coupled to a plurality of physical ports and the broadband communication link; and
       a network element coupled to the communication link, the network element modeling the plurality of physical ports and providing a two-tier hierarchy of shaping and scheduling of flows directed to the plurality of physical ports.

13.   (Original) The system of claim 12 wherein the network element comprises:
       a first flow shaper to shape a plurality of flows directed to a remote physical port (RPP);
       a first scheduler to schedule the flows shaped by the first flow shaper to yield a scheduled flow;
       a second flow shaper to shape the scheduled flow; and
       a trunk scheduler to schedule the flow shaped by the second flow shaper for transmission to the RPP.

14.   (Original) The system of claim 12 further comprising:
       a plurality of data structures populated with data indicating characteristics of a remote physical port (RPP); and
       a database populated with flow parameters.

15.   (Original) The system of claim 14 wherein a one-to-one correspondence exists between RLP data structures and RPPs.

16.   (Original) The system of claim 13 wherein the network element comprises:
       a queue for each flow directed at a physical port and wherein shaping and scheduling are performed by pointer manipulation.

17.   (Original) A method comprising:

modeling a plurality of remote physical ports (RPP) as a plurality of remote logical ports (RLP); and

reflecting quality of service from a control aggregator to the plurality of RPPs.

18.   (Original) The method of claim 17 wherein reflecting comprises:

shaping a plurality of flows directed to a RPP into a plurality of shaped flows;

scheduling the shaped flow into a scheduled flow;

shaping the scheduled flow into a shaped scheduled flow; and

scheduling the shaped scheduled flow for transmission to the RPP.

19.   (Original) The method of claim 17 wherein modeling comprises:

populating a database with an entry indicating an ability of an RPP to handle data.

20.   (Original) The method of claim 19 wherein modeling further comprises:

creating a data structure for each flow directed to a remote physical port; and

manipulating the data structure to indicate eligibility of a transmission unit consistent with the ability of the RPP to handle data.

21.   (Original) The method of claim 17 further comprising:

statistically multiplexing the flows from the plurality of RLPs to the plurality of RPPs.

22.   (Original) The method of claim 17 wherein a one-to-one correspondence exists between the RLPs and the RPPs.